

REMARKS

Applicant respectfully requests consideration of the subject application as amended herein. This Amendment is submitted in response to Advisory Action mailed December 30, 2005 and the Final Office Action mailed October 6, 2005. Claims 1-32 are rejected.

In this Amendment, Claims 1, 18, and 28 have been amended to put the claims into condition for allowance. Applicant submits that the Amendment did not add new matter that require new search and eagerly seek entering of the Amendment.

Rejections under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-5, 18-20 and 28 under 35 U.S.C. §103(a) as being unpatentable over Nagamine (U.S. Patent No. 6,715,943, hereinafter “Nagamine”) in view of Tsukamoto, et al. (U.S. Patent No. 5,993,552, hereinafter “Tsukamoto”).

Applicant respectfully disagrees. Applicant submits that Nagamine and Tsukamoto individually or in combination did not teach, suggest, or motivate (Claim 1):

A semiconductor substrate processing apparatus, comprising:
a frame;
a substrate support mounted to the frame to support a semiconductor substrate;
a dispense head, having at least one outlet opening, connected to the frame for movement relative to the semiconductor substrate; and
a solvent bath attached to the frame having a reservoir and a drain, the reservoir holding a first fluid, the solvent bath shaped such that when the dispense head is in a selected position in the solvent bath, a second fluid dispensed from the at least one outlet opening enters the drain and the at least one outlet opening is exposed to the first fluid,
wherein the solvent bath includes a recess for the dispense head to engage the solvent bath such that a fit of the dispense head into the recess substantially seals the solvent bath such that only a minimal amount of saturated air escape therethrough, and
wherein the second fluid exits the solvent bath through the drain without mixing with the first fluid.

As the Examiner stated, Nagamine did not disclosed a solvent bath with a drain. Tsukamoto taught a solvent bath which includes a reservoir and a drain. None of Nagamine and Tsukamoto taught a solvent bath with a drain wherein the solvent bath includes a recess for the dispense head to engage the solvent bath such that a fit of the dispense head into the recess substantially seals the solvent bath such that only a minimal amount of saturated air escape therethrough , and wherein the second fluid exits the solvent bath through the drain without mixing with the first fluid.

As taught by Applicant's invention, when the dispense head is placed into the solvent bath, the dispense head and the recess in the solvent bath substantially seal (or in some embodiment, completely seal) the chamber in the solvent bath so that only a minimal amount of saturated air within the chamber may escape through the chamber. In this way, the dispense head and its nozzle(s) are only exposed to a controlled atmosphere, particularly a controlled atmosphere saturated with a first fluid in the reservoir of the solvent bath. Thus, the dispense head needs not contact the first fluid in the reservoir and still not risking being dried out because the solvent bath remains saturated. (See, for example, Applicant's Specification, page 12). Furthermore, the drain in Applicant's invention can drain out of the solvent bath without mixing with the fluid in the reservoir in the solvent bath as taught by Applicant's Specification, page 14, [0034]-[0035] for example.

On the other hand, Tsukamoto taught that the nozzle head is soaked in the solvent bath filled with resist preventing hardening of the resist at the tip. There is no teaching of a "fit" between the nozzle head and the solvent bath or any sealing between the nozzle head and the solvent bath to prevent saturated air from escaping the solvent bath as required in claim 1. Tsukamoto also did not teach that the fluid from the nozzle head could drain out of the drain without mixing with the reservoir in the solvent bath.

Therefore, Applicant respectfully submits that combining Tsukamoto to Nagamine would have not provided the elements of claim 1 as amended.

Claims 2-17 depend from Claim 1 and thus, the same discussion applies.

The Examiner has rejected claims 6-17, 21-27 and 29-32 under 35 U.S.C. §103(a) as being unpatentable over Nagamine in view of Tsukamoto as applied to claims 1, 18 and 28 above and further in view of JP2001-205162A. Claims 6-17, 21-27 and 29-32 contain similar amendments as claim 1 discussed above.

The discussions above with regard to Tsukamoto and Nagamine are similarly applicable to this section. Furthermore, even if a nozzle cleaning is achieved by evaporating a cleaning liquid from a reservoir as taught by JP2001-205162A, JP2001-205162A did not teach or suggest a solvent bath with a reservoir and a drain where the fluid from the nozzle can be dispensed while in the solvent bath and enters the drain in the solvent bath and can exit the solvent bath without mixing with the fluid in the reservoir.

Additionally, with respect to claims 9-13, 24-27, and 29-32, the construction of Tsukamoto and JP2001-205162A's solvent baths could have not made obvious claims 9-13, 24-27, and 29-32 for the same reasons stated above.

With respect to claims 14-18, even if Tsukamoto and JP2001-205162A taught the use of photoresist and solvent, claims 14-18 could have not been made obvious by Nagamine and in view of if Tsukamoto and JP2001-205162A for the same reasons stated above.

Therefore, Applicant respectfully submits that combining Tsukamoto and JP2001-205162A to Nagamine would have not provided the elements of claims 6-17, 21-27 and 29-32 as amended.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Mimi Dao at (408) 720-8300.

Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Also filed concurrently with this Amendment is Applicant's petition for Extension of Time under 37 C.F.R. § 1.136 (a) for a one-month extension.

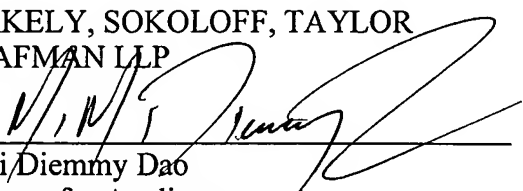
Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR
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